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Fig. 1.

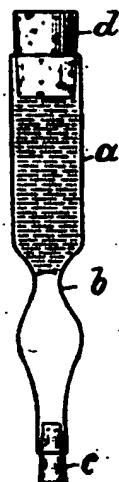
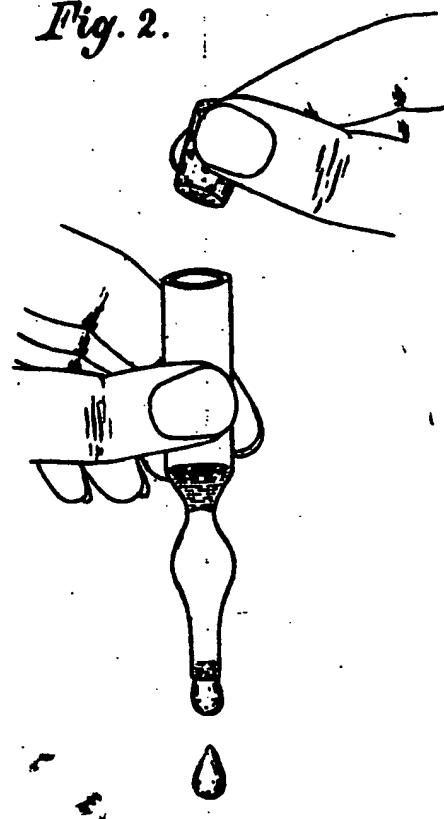


Fig. 2.



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328. *Microcystis*  
*cupoidea*

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N° 2799

A.D. 1906



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*Date of Application, 5th Feb., 1906—Accepted, 5th Apr., 1906*

## COMPLETE SPECIFICATION.

## “ Improvements in Drop Flasks ”

I, WALTHER HELLMUTH GREIFENHAGEN, of 19 Rottmannstrasse, Munich, in Germany, Medical Student, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

5 This invention relates to improvements in drop flasks. Various devices are used for the purpose of introducing small quantities of liquid into cavities more particularly with the object of treating diseases of the human body, but the cost of the most efficient devices hitherto known for this purpose is so considerable, as to practically necessitate the repeated use thereof, so that danger of 10 blood-poisoning or injection is involved. For this purpose it is desirable to provide, for the purpose indicated, a cheap device which can, without involving considerable expense, be destroyed after being once used. Several devices which have been designed with this object in view are, for various reasons, inefficient 15 in their action. In some cases the means for fastening the receptacle are not sufficiently secure to prevent premature evaporation of the antiseptic or medicinal substance contained in the said receptacle. In other cases, more particularly in those in which collapsible tubes are used, the receptacle is not adapted to contain a liquid, and can only be used for viscous substances. The 20 known cups or flasks with narrow orifices normally closed by means of a soft substance such as wax, gelatine, or the like, have the disadvantage that portions of the said substance are liable to become mixed with the liquid in the receptacle or that even the entire plug or stopper may be dissolved or decomposed by the said liquid.

25 The object of the present invention is to provide a device for introducing drops of antiseptic or medicinal liquid into small cavities of the human body, without involving any of the disadvantages hereinbefore indicated.

The invention is illustrated in the annexed drawing in which Figure 1 is an elevation of the device and Figure 2 a view illustrating the manner in which the latter is used.

30. The device comprises a glass tube  $a$  of suitable length and diameter hermetically closed at both ends by means of plugs  $c$  and  $d$  of cork or other suitable material. The lower orifice of the said tube is considerably smaller than the upper orifice, so that it can be conveniently introduced into small cavities, for instance, into the penis. The essential novel feature of the device consists, 35 however, in the constriction  $b$  between the orifices of the tube  $a$ , which produces a narrow duct or passage preferably at the central part of the said tube, the diameter of the duct or passage being such that only a portion of the contents of the tube can flow from the latter through the smaller orifice, even when both orifices are open. This arrangement not only allows of easily obtaining the discharge of the liquid in the form of drops, but also facilitate the closing 40. of the discharge-orifice.

45 For use, the plug or stopper *c* is first removed from the discharge orifice, and the empty portion of the tube between the said orifice and the constriction *b* is thereupon introduced into the part to be treated. Thereupon the upper plug or stopper *d* is removed, as shown in Figure 2, and the liquid is thus enabled to flow in the form of drops into the said part. The cost of the small tube

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*Greifenhagen's Improvements in Drop Flasks.*

and its contents is so small that practically no material loss is involved by destroying it immediately after use.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

A drop flask having orifices at both ends adapted to be closed by plugs of suitable material and a preferably central constriction, the discharge orifice being smaller than the charging orifice.

Dated this 5th day of February 1906.

HERBERT HADDAN & Co.,  
Agents for Applicant.  
31 & 32 Bedford Street, Strand, W.C. London.

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